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| 10/667,081 | 09/18/2003 | Kung-Ling Ko | 2120-02400 | 1443 |

23505 7590 01/16/2009
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| EXAMINER |
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DAVENPORT, MON CHERI S

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| ART UNIT | PAPER NUMBER |
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2416

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01/16/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

pathou@conleyrose.com

Office Action Summary

Application No.

10/667,081

Applicant(s)

KO, KUNG-LING

Examiner

MON CHERI S. DAVENPORT

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period **will** apply and **will** expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply **will**, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 October 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 56-91 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 56-91 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 56-59, 62-65, 68-71, 74-77, 80-83, and 86-89** rejected under 35 U.S.C. 102(b) as being anticipated by Caldara et al. (US Patent 6,236,655).

Regarding claims **56, 62, 68, 74, 80, and 86** Oberman et al. discloses a first port for connection to a first external device and capable of transfer ring packets and operating using a plurality of virtual channels, wherein virtual channels designate logical subdivisions of a link and are not used for routing of packets (see fig 1, section 12, TSPP0, to-switch processing port, see col. 2, lines 56-59, system including TSPP processing port, see also col. 2, lines 16-27, technical advantage includes replacing a VCI value of a control cell with a specific logical link number corresponding to the link which control cell is received. The switch control module processes the control cell, which reads on virtual channels designate logical subdivisions of a link not used for routing of packets));

a second port for connection to a second external device and capable of transferring packets and operating using a plurality of virtual channels (see fig 1, section 12, TSPP1, to-switch processing port, see col. 2, lines 56-59, system including TSPP processing port);

switching logic connected to said first port and said second port for transferring packets between said first and second ports (see figure 1, section 16, switching fabric,

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see col. 3, lines 49-55, switch fabric connected to each TSPP processing port for transferring data) ;

control logic coupled to said first port and said second port to configure said first port to operate using a first number of virtual channels and said second port to operate using a second number of virtual channels, wherein the first number is not equal to the second number (see figure 1, section 18, SCM (switch control module), see col. 3, lines 56-63, implemented as one or more ASIC (application specific integrated circuit), see also col. 2, lines 60-64, the TSPP included a number of connection or links which reads on first number not equal to the second number) ; and

remapping logic coupled to said first port, said second port and said switching logic, said remapping logic including and utilizing a table to remap the first number of virtual channels to the second number of virtual channels (see figure 1, section 20 remapping table ,see col. 3-4, lines 64-7, the mapping table identifies the specific link and the TSPP).

Regarding **Claims 57, 63, 69, 75, 81, and 87** Caldara et al. discloses everything as applied above (*see claims 56, 62, 68, 74, 80, and 86*).

wherein said table includes an incoming table to remap from the first number of virtual channels and an outgoing table to remap to the second number of virtual channels (see figure 1, section 14, logical link table (incoming table) and section 20, reverse mapping table, (outgoing table) see col. 3-4, lines 67-7, the reverse mapping table comprises information to identify the specific link (virtual channels) to the TSPP (port)).

Regarding **Claims 58, 64, 70, 76, 82, and 88** Caldara et al. discloses everything as applied above (*see claims 56, 62, 68, 74, 80, and 86*).

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wherein the control logic is configured to determine the first number based on data sent by the first external device and configured to determine the second number based on data sent by the second external device (see col. 3, lines 3-12, each link is operable to receive cell data including control cells , which refers to cells containing signaling or administration information , including the VPI (virtual path identification) and the VCI (virtual channel identification) .

Regarding **Claims 59, 65, 71, 77, 83, and 89** Caldara et al. discloses everything as applied above (*see claims 56, 62, 68, 74, 80, and 86*).

wherein the control logic is configured to determine the first number and second number during initialization(see col. 3, lines 13-16, interim local management interface (ILMI) has a VPI and VCI field, see also col. 3, lines 56-63, the SCM (control logic) receives ILMI control cells which contain the first and second number information during the initialization) .

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 60, 61, 66, 67, 72, 73, 78, 79, 84, 85, 90 and 91** rejected under 35 U.S.C. 103(a) as being unpatentable over Caldara et al. in view of Oberman et al. (US Patent Application 2003/0026267).

Regarding **Claims 60, 66, 72, 78, 84, and 90** Caldara et al. discloses everything as applied above (*see claims 56, 62, 68, 74, 80, and 86*).

Regarding However Caldara et al. fails to specifically point out wherein the switch is a Fibre Channel switch as claimed.

Oberman teaches wherein the switch is a Fibre Channel switch (see Oberman [0016], lines 1-12, the network switches incorporated into a SAN supporting Fibre channel (Fibre channel switch)).

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to combine Caldara et al. invention with Oberman invention because Oberman invention provides a credit-based flow control on network links between network switches (see Oberman [0015], lines 1-4).

Regarding **Claims 61, 67, 73, 79, 85, and 91** Caldara et al. discloses everything as applied above (*see claims 60, 66, 72, 78, 84, and 90*).

However Caldara et al. fails to specifically point out wherein the first external device and the second external device are Fibre Channel switches as claimed.

Oberman teaches wherein the first external device and the second external device are Fibre Channel switches (see Oberman, see figure 1, [0016], lines 1-12, the network switches incorporated into a SAN supporting Fibre channel (Fibre channel switches))

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to combine Caldara et al. invention with Oberman invention because Oberman invention provides a credit-based flow control on network links between network switches(see Oberman [0015], lines 1-4).

Response to Arguments

3. Applicant's arguments filed 10/29/2008 have been fully considered but they are not persuasive.

In the remarks on pg. 9 of the amendment, the applicant contends that Caldara does not teach or suggest "transferring packets between a first and second port." However, argument does not pertain to claims as presented. The claim language does not state this limitation.

In the remarks on pg. 10 of the amendment, the applicant contends that Caldara does not teach or suggest "remapping of virtual channels not used for routing packets"

Examiner respectfully disagrees Caldara teaches in col. 2 lines 16-27 that a technical advantage of the invention is that a VCI value of a control cell with a logical link number corresponding to the link and port at which the control cell is received. The switch control module processed the control cell. The control cell is not used for routing packets.

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the

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advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MON CHERI S. DAVENPORT whose telephone number is (571)270-1803. The examiner can normally be reached on Monday - Friday 8:00 a.m. - 5:00 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kevin C. Harper/
Primary Examiner, Art Unit 2416

/Mon Cheri S Davenport/
Examiner, Art Unit 2416
January 9, 2009